NATURAL RESOURCES CONSERVATION SERVICE

DOCUMENTATION REQUIREMENTS

WASTE STORAGE FACILITY (313)

FIELD DATA

The following is a list of the minimum field data to be collected:

1. System plan sketch;
2. Topographic survey of the site showing building locations, elevations at structure location and at outlets from barns, separators, etc. Sufficient survey to generate a contour plotting of the area is generally needed;
3. Location of existing resources, such as ponds, wells, streams, and wetlands;
4. Location of facility in relation to the 25-year and 100-year floodplain;
5. Location of soils test pits, dwellings and property line fences;
6. Soils investigation sufficient to describe the USCS classification, depth to water table, and the presence of large boulders or bedrock. See the standard for required level of investigation. Storage ponds will require more extensive investigation, including taking samples for hydraulic conductivity lab tests;
7. Operator data to determine the quantity and consistency of the manure, waste water, wash water, and bedding generated. Also include the proposed methods of handling, transporting, and spreading the manure. This information is generally gathered to produce a waste management plan, which is required for all waste storage facilities.

DESIGN DATA

The following is a list of the minimum required design data:

1. Waste Management System Plan;
2. Sizing calculations for all sources of wastes to be stored in the facility;
3. Structure design of the storage facility. If a standard design or drawing is used, all site conditions, assumptions, and requirements of the standard design must be met;
4. Analysis of foundation investigation to ensure sufficient bearing capacity for the facility, and to evaluate the need for foundation treatment or lining to achieve required separation from bedrock;
5. Foundation drainage and outlet design, if needed;
6. For facilities with concrete floor, design of the subbase and the floor to minimize cracking potential, including reinforcing steel requirements and expansion joint spacing;
7. Evaluation of on-site material to determine suitability as backfill or embankment fill, as applicable;
8. Design of related structural components. Refer to the Manure Transfer (634), Pond Sealing or Lining (521), and Fence (382) practice standards;
9. Safety measures;
10. Construction drawings shall include the following as a minimum:
    - Plan view including location map and all system components, location of existing structures and resources, test pits, property lines, and other important features. Contour lines are generally desirable;
    - Cross sections and structural details in sufficient detail to adequately show the proper construction of the facility and its associated components;
    - Soil logs;
    - Include approved standard drawings if used;
    - Details of fence;
    - Lime, fertilizer, and seeding requirements according to practice standard 342, Critical Area Planting (may be included as a specification instead);
    - Quantities of materials;

- Critical Inspection Items;
- Utilities statement and Excavation Safety statement.

11. Construction and material specifications;
12. If a roof is associated with the facility, then refer to the documentation requirements for Roof;
13. Written Operation and Maintenance (O&M) plan. This plan would normally include routine operational requirements, markers or references to determine remaining storage, marker or reference to the freeboard requirement, emergency action plan, and safety precautions.

PRE-CONSTRUCTION & INSPECTION

1. Preconstruction Meeting With Landowner And Contractor. This is a meeting to explain the drawings and specifications, discuss requirements for construction and material certifications, level of staking needed, safety issues, utilities notification, and other topics. Document the following as a minimum:
   - Time and date of meeting;
   - Names of attendees;
   - Items discussed and decisions made.
2. Layout And Staking Of Practices. Document:
   - Survey notes showing layout of the practices, including date and who performed the staking;
   - If the contractor provides staking, then document any reviews made to ensure proper placement of the practice.
3. Utilities Notification. Can use form ENG-5 and ENG-6 to assist in tracking utility notifications (See NEM §MA503). Document:
   - Initial discussion with landowner about his or her responsibility to notify utilities;
   - Information from landowner about existence and location of known utilities;
   - Assurances that utility company has been notified, including staking by utilities.
4. Inspection During Construction. Document:
   - All inspections made during construction, including all those identified on the drawings as critical inspection items;
   - Include visual inspections and conclusions, surveys, tests and test results;
   - Discussions with landowner and contractor;
   - Photographs taken before and during construction;
   - Approval by designer of any changes from the drawings or specifications before implementation of the change.

CONSTRUCTION CHECK

The following is a list of the minimum required data to support the as-built drawing:

1. Actual dimensions of installed structure;
2. Verification of adequate foundation conditions and preparation;
3. Documentation of proper installation of reinforcing steel and placement, curing, and protection of concrete, if applicable;
4. Materials documentation to certify quality as stated on drawings and specifications;
5. Refer to the documentation requirements for construction check of individual practice components installed, such as Manure Transfer (634), Pond Sealing or Lining (521), and Fence (382);
6. Adequacy of seeding of disturbed areas;

CERTIFICATION

The following is a list of what must be certified by a person with the required approval authority for the installed practice:

1. Final quantities and documentation for quantity changes;
2. Statement on the as-built drawings that the installed practices meet or exceed the requirements of the NRCS practice standards;
3. Record in the case file the number of waste storage facilities installed;
4. Report in PRMS, as applicable;
5. See documentation requirements of associated practices to determine certification requirements.